ADVANCES IN GERD

Current Developments in the Management of Acid-Related GI Disorders

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ENT Manifestations of GERD: The Gastroenterologist's Perspective

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G&H How prevalent is the association of gastroesophageal reflux disease with ear, nose, and throat symptoms?

MV From a gastroenterologist's perspective, ear, nose, and throat (ENT) symptoms are very common. Patients with extraesophageal reflux, with laryngitis as one component of these extraesophageal symptoms, are often referred to us from otolaryngologists as well as allergy specialists and pulmonary physicians. Specifically, the symptoms with which these patients often present include chronic cough, throat clearing, shortness of breath, asthma, hoarseness, sore throat, sinus infection, and, particularly in children, chronic middle ear infections. The most common ENT symptoms are sore throat, hoarseness, throat clearing, and cough.

G&H What is the perceived pathophysiology of the association between ENT symptoms and gastroesophageal reflux disease?

MV ENT symptoms were first noted with gastroesophageal reflux disease in the 1960s when an ENT physician had 3 patients with throat symptoms and suspected that perhaps reflux played a role. Since then, it has been thought that reflux of gastric content, whether acid, pepsin, a combination of acid and pepsin, or both plus bile acids from bile reflux (again either in isolation or in combination) could be either refluxing high enough in the larynx that it causes irritation or could reflux distally at the esophagus, predisposing patients to asthma attacks, cough, or laryngeal inflammation. Pathophysiologically, there are two mechanisms. One is direct injury through reflux of gastric acid or duodenal content, and the other is indirect injury through a vagal mechanism causing damage. Most physicians believe that the direct mechanism is likely the most important in causing laryngeal inflammation or symptoms. In asthma and cough, however, the indirect mechanism may also play a role.

G&H When patients are referred to gastroenterologists by ENT specialists, what is the first step for diagnosis and management?

MV The biggest challenge is having the right diagnostic criteria. For example, if a patient has throat clearing and/or cough and hoarseness, the patient usually presents to their otolaryngologist and undergoes laryngoscopy, which usually suggests an irritated larynx. However, from this, our ENT colleagues assume that the cause is reflux. Making a reflux diagnosis from laryngoscopy is suspect at best. Laryngoscopy only identifies potential irritation, not the cause of the irritation. At this point, currently, most patients are placed on aggressive acid suppression therapy with proton pump inhibitors, even though they are not approved by the US Food and Drug Administration for treatment of extraesophageal reflux disease. (Proton pump inhibitors are approved only for esophagitis and typical reflux.) Nevertheless, the current recommendation suggests once- or twice-daily proton pump inhibitor therapy, at a maximum of twice-daily therapy for 2–3 months, and if the patients do not improve within this time period, they are referred to gastroenterologists. Thus, gastroenterologists are seeing only this population of nonresponders to proton pump inhibitors who continue to experience throat symptoms and continue to have irritated larynxes.

When evaluating these patients, gastroenterologists use the standard diagnostic tests for reflux (endoscopy and pH monitoring). Gastroesophageal reflux disease is not identified in many of these patients because the cause is likely not reflux disease; if the cause were reflux, they would have likely responded to the proton pump inhibitor therapy. Once reflux is excluded, gastroenterologists try to rule in other causes.

The problem is that our ENT colleagues continue to insist that the cause of the symptoms is acid reflux, despite the lack of response to therapy or negative diagnostic testing. What we are trying to do as gastroenterologists is

educate our otolaryngologist colleagues to suspect reflux when there are appropriate signs, but also to recognize that their diagnostic test is not the gold standard. They should keep in mind that there are other potential causes that we all need to better identify, so that once a patient does not improve on twice-daily therapy, at some point, other causes are considered rather than persisting that reflux is still the cause.

G&H Does surgical therapy play a role in these patients?

MV I would strongly discourage surgical therapy for any patient who is not a responder to proton pump inhibitor therapy for extraesophageal reflux disease, including chronic laryngitis patients, even though ENT physicians might insist that they continue to see irritation. If patients do not improve on twice-daily therapy after 2 months, I would strongly discourage fundoplication for this group until they have undergone appropriate diagnostic tests by gastroenterologists, which include endoscopy, pH monitoring, and possibly impedance monitoring, as previously mentioned.

G&H If reflux is not the cause of these extraesophageal manifestations, what is the actual cause?

MV This is the real puzzle. There have not been many well-performed studies in patients who do not improve on proton pump inhibitors and have negative pH monitoring, impedance monitoring, and endoscopy results (and thus do not have reflux). The most commonly discussed potential causes are postnasal drip (as a cause of potential cough and/or inflammation), alcohol, smoking, voice abuse or overuse, allergies (not surprisingly), and certain medications that may cause irritation (such as inhalers). Other than these, we do not know much about other potential causes.

It should be noted that many gastroenterologists mistakenly believe that it is not possible for reflux to cause chronic laryngitis. Although reflux is not the cause of the majority of extraesophageal manifestations, it can be the cause in some patients. The difficulty is that we have not been able to identify which subgroups of patients have reflux and which subgroups do not. As alluded to above, the reason for this misconception is that gastroenterologists do not treat patients who actually do improve on proton pump inhibitor therapy because they are treated by ENT physicians. These patients improve and are not the ones who are referred to gastroenterologists. Gastroenterologists only see the nonresponders, who, by default, generally end up being patients with symptoms unrelated to reflux disease, providing a biased view.

G&H If these patients present first to a gastroenterologist, is consultation with an ENT specialist always necessary?

MV Most commonly, these patients present via the mechanisms mentioned above, with throat- or lung-related symptoms. They either see their allergist, pulmonary physician, or ENT physician. Gastroenterologists do, however, occasionally see some of these patients. In these cases, my recommendation would be to take a multidisciplinary approach, which, in my view, means collaborating with allergists, pulmonary physicians, and ENT physicians in a multisystem and multi-disciplinary fashion. We know that reflux can play a role here, but if it is the cause of the symptoms, these patients would improve on proton pump inhibitor therapy. If they do not improve, our role should be to put them through appropriate disciplines for testing and treatment. For many of these patients, reflux, if they have it, is not the sole cause; it is reflux plus allergy plus voice abuse plus other factors, making multiple therapies necessary to treat the patients.

G&H What are the next steps for future research?

MV There are several important research needs. The most important, in my opinion, is to identify potential predictors of who, out of the group of patients being evaluated, has reflux as the cause for their laryngeal symptoms—in other words, knowing which types of signs, symptoms, or presentations are caused by reflux. This way, we would know to look for other causes if patients do not have these signs, and unnecessary tests could be avoided. Presently, we do not have good signs that tell our ENT colleagues which group of patients potentially has reflux. Another goal is to identify the role of diagnostic tests such as impedance monitoring in patients who do not respond to twice-daily proton pump inhibitor therapy. Here at Vanderbilt University, we are collaborating with our allergy, sinus, and ENT colleagues to arrive at answers to both of these questions. We are moving in the right direction, but we are not there yet.

Suggested Reading

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